REMARKS

The Office Action dated October 16, 2008, has been received and carefully noted. The above amendments to the claims, and the following remarks, are submitted as a full and complete response thereto.

STATUS OF THE CLAIMS

Claims 1-17 and 35-46 are currently pending in the application, of which claims 1, 35, and 46 are independent claims. Claims 1-17 and 35-45 have been amended, and claim 46 has been added, to more particularly point out and distinctly claim the subject matter of the present invention. No new matter has been added. Claims 18-34 have been cancelled without prejudice or disclaimer. Claims 1-17 and 35-46 are respectfully submitted for consideration.

CLAIM OBJECTIONS

Claims 3, 19-20, 26-32, 34-36, 39-43, and 45 were objected to because of alleged informalities. Applicants have amended claims 3, 35-36, 39-43, and 45, as suggested by the Office Action, and have cancelled claims 19-20, 26-32, and 34 without prejudice or disclaimer. Accordingly, Applicants respectfully submit that this objection is now moot in view of the amendments and the cancellations.

Reconsideration and allowance of claims 3, 35-36, 39-43, and 45 are thus respectfully submitted.

CLAIM REJECTIONS UNDER 35 U.S.C. 102

Claims 1-45 were rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,539,729 of Bodnar ("Bodnar"). Applicants respectfully submit that claims 1-17 and 35-45 recite subject matter that is neither disclosed nor suggested in the cited art.

Independent claim 1, upon which claims 2-17 depend, is directed to a method including allocating each received packet to at least one arrival queue. The method also includes placing each packet in the allocated queue if said queue is not full, otherwise dropping said packet. The method further includes scheduling packets from the arrival queue to at least one transfer queue. The method additionally includes responsive to transfer of a packet to a transfer queue, generating an interrupt. The method also includes responsive to receipt of an interrupt, allocating the packet from said transfer queue to one of a plurality of processor queues. The method further includes placing the packet in the allocated processor queue if said queue is not full, otherwise dropping said packet. The method additionally includes scheduling packets from the processor queues to be processed.

Independent claim 35, upon which claims 36-45 depend, is directed to an apparatus including a processor configured to allocate a received packet to at least one arrival queue. The processor is also configured to place each packet in the allocated queue if said queue is not full, otherwise dropping said packet. The processor is further

configured to schedule packets from the arrival queue to at least one transfer queue. The processor is, responsive to transfer of a packet to a transfer queue, additionally configured to generate an interrupt. The processor is, responsive to receipt of an interrupt, also configured to allocate the packet from said transfer queue to one of a plurality of processor queues. The processor is further configured to place the packet in the allocated processor queue if said queue is not full, otherwise dropping said packet. The processor is additionally configured to schedule packets from the processor queues to be processed.

Applicants respectfully submit that Bodnar fails to disclose or suggest all of the features of any of the presently pending claims.

Bodnar generally relates to a system and a method that controls potential overload of packet switches when the packet switch has multiple packet streams with different priority levels. A counter is associated with the higher priority packet stream, so that when the counter reaches a predetermined number, the higher priority packet stream is disabled, so that the lower priority packet stream may be processed. When the counter reaches the predetermined number, interrupts are disabled, thus inhibiting processing of the higher priority packet stream. A predetermined number of polled packets are processed before interrupts are enabled (*see* Bodnar at Abstract).

However, Bodnar does not disclose or suggest, at least, "**responsive to transfer of a packet to a transfer queue**, generating an interrupt," as recited in independent claim 1 and similarly recited in independent claim 35 (emphasis added). The Office Action

asserted that these features are disclosed by Bodnar at col. 4, lines 32-38. In the cited portion, Bodnar states, "An interrupt is generated **every time receive buffer ... receives a packet ...**" (emphasis added). The Office Action took the position that the receive buffer of Bodnar corresponds to the arrival queue of the claimed invention, and that the transmit buffer of Bodnar corresponds to the transfer queue of the claim invention (*see* Office Action at pages 2-3).

However, the receive buffer of Bodnar fails to disclose or suggest **responsive to transfer of a packet to the transmit buffer**, generating an interrupt. Accordingly, Bodnar fails to disclose or suggest, at least, "**responsive to transfer of a packet to a transfer queue**, generating an interrupt," as recited in independent claim 1 and similarly recited in independent claim 35 (emphasis added).

Furthermore, Bodnar does not disclose or suggest, at least, "responsive to receipt of an interrupt, allocating the packet from said transfer queue to one of a plurality of processor queues," as recited in independent claim 1 and similarly recited in independent claim 35. The Office Action asserted that these features are disclosed by Bodnar at col. 4, lines 32-28. In the cited portion, Bodnar refers to moving data to the transmit buffer. As discussed above, the Office Action took the position that the transmit buffer of Bodnar corresponds to the transfer queue of the claim invention (*see* Office Action at page 3).

However, Bodnar fails to disclose or suggest allocating a packet **from the transmit buffer to a processor**. Accordingly, Bodnar does not disclose or suggest

"responsive to receipt of an interrupt, allocating a packet **from said transfer queue to …a … processor**," as recited in independent claim 1 and similarly recited in independent claim 35 (emphasis added). As clearly supported in the specification at Figure 2 of the present application, both arrival queues 210 and device transfer queues 218 are located in a separate unit from a processor 260, and packets are transferred **from the device transfer queues 218 to the processor 260**. In contrast, as shown in Figure 3 of Bodnar, although the transmit buffer 82 receives packets from the receive buffer 81 directly or indirectly, the packets are not sent **from the transmit buffer 82 to a processor**, such as microprocessor 87.

In addition, the microprocessor of Bodnar cannot correspond to the **processor** of the claimed invention. Accordingly, Bodnar does not disclose or suggest "responsive to receipt of an interrupt, allocating a packet from said transfer queue to one of a plurality of **processor** queues," as recited in independent claim 1 and similarly recited in independent claim 35 (emphasis added). Bodnar refers to a packet handler including the receive buffer for receiving packets and the transmit buffer for storing packets (*see* Bodnar at col. 4, lines 16-19). Prioritization of packets is referred to (*see* Bodnar at Figure 4). The microprocessor of Bodnar is part of the packet handler that controls operation of the buffers (*see* Bodnar at Figure 3 and col. 4, lines 34-38).

In contrast, the processor of the claimed invention receives the output from a network device, or effectively a packet handler (*see* Specification at Figure 2). The processor of the claimed invention is not part of the network device itself (*see id.*). In

other words, the processor and the network device work smartly in conjunction with each other according to the claims of the present application. Therefore, Bodnar fails to disclose or suggest, at least, "responsive to receipt of an interrupt, allocating the packet from said transfer queue to one of a plurality of **processor** queues," as recited in independent claim 1 and similarly recited in independent claim 35 (emphasis added).

For at least the reasons discussed above, Applicants respectfully submit that the Bodnar does not disclose or suggest all of the elements of independent claims 1 and 35. Accordingly, Applicants respectfully request that the rejection of claims 1 and 35 be withdrawn.

Claims 2-17 and 36-45 depend from, and further limit, independent claims 1 and 35. Thus, each of claims 2-17 and 36-45 recite subject matter that is neither disclosed nor suggested in Bodnar. Accordingly, Applicants respectfully request that the rejections of claims 2-17 and 36-45 be withdrawn.

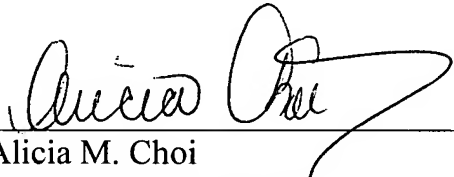Reconsideration and allowance of claims 1-17 and 35-45 are therefore respectfully submitted.

CONCLUSION

For the reasons explained above, it is respectfully submitted that each of claims 1-17 and 35-46 recite subject matter that is neither disclosed nor suggested in the cited art. It is, therefore, respectfully requested that all of claims 1-17 and 35-46 be allowed, and that this application be passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, Applicants' undersigned representative at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, Applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,

Alicia M. Choi
Registration No. 46,621

Customer No. 32294
SQUIRE, SANDERS & DEMPSEY LLP
14TH Floor
8000 Towers Crescent Drive
Vienna, Virginia 22182-6212
Telephone: 703-720-7800
Fax: 703-720-7802

AMC:LHT:kh